

## PHYSICS AND ASTRONOMY COLLOQUIUM

## Dr. Michelle Wang

**Cornell University** 

## "Single Molecule Mechanics – Towards High Throughput"

## **Abstract**

Our lab focuses on mechanical studies of fundamental biological processes in biology: transcription and replication. These are highly dynamic processes that are carried out by molecular motors that translocate along, and rotate around, DNA. We are interested in forces and torques generated by these motor proteins and how their mechanics regulates transcription and replication. To directly measure these processes at the single molecule level, we develop state-of-the-art (and often one-of-a-kind) instruments and novel techniques. Our recent efforts hold promise to make these precision measurements high throughput on a nanophotonic platform.

Wednesday, March 9, 2016 3:00 p.m. Bob Wright Centre Room A104